

Title (en)

METHOD FOR ESTIMATING THE MATERIAL PROPERTIES AND THE INDIVIDUAL THICKNESSES OF NESTED PIPES

Title (de)

VERFAHREN ZUR SCHÄTZUNG DER MATERIALEIGENSCHAFTEN UND DER INDIVIDUELLEN DICKEN VON INEINANDER GESCHACHTELTEN ROHREN

Title (fr)

PROCÉDÉ D'ESTIMATION DES PROPRIÉTÉS DE MATÉRIAUX ET DES ÉPAISSEURS INDIVIDUELLES DE TUYAUX EMBOÎTÉS

Publication

EP 3707502 A4 20210106 (EN)

Application

EP 18875594 A 20181026

Priority

- US 201762582801 P 20171107
- US 2018057802 W 20181026

Abstract (en)

[origin: WO2019094209A1] A method and system for determining properties of a pipe string using multi-channel induction measurements. The method may comprise disposing a multi-channel induction tool in a cased hole, obtaining a multi-channel measurement, forming a log from the multi-channel measurement, extracting at least one abnormality that corresponds to known metal thickness, performing a search to find a set of pipe material properties that minimize a mismatch between the abnormality and a simulated response, and inverting the log to estimate the set of pipe material properties at one or more depth points using the set of pipe material properties. The system may comprise a multi-channel induction tool. The multi-channel induction tool may comprise at least one transmitter, at least one receiver, and an information handling system.

IPC 8 full level

G01N 27/90 (2021.01); **E21B 47/08** (2012.01); **G01B 7/06** (2006.01); **G01B 15/02** (2006.01)

CPC (source: EP US)

E21B 47/00 (2013.01 - US); **E21B 47/08** (2013.01 - EP); **E21B 47/085** (2020.05 - EP); **G01B 7/10** (2013.01 - EP); **G01B 15/02** (2013.01 - EP);
G01V 3/28 (2013.01 - US); **G01N 27/90** (2013.01 - EP)

Citation (search report)

- [XI] US 2017176629 A1 20170622 - OMERAGIC DZEVAT [US], et al
- [XI] WO 2016010915 A1 20160121 - HALLIBURTON ENERGY SERVICES INC [US]
- [XI] WO 2015157270 A1 20151015 - HALLIBURTON ENERGY SERVICES INC [US]
- [A] WO 2016007282 A1 20160114 - HALLIBURTON ENERGY SERVICES INC [US]
- [A] EP 1795920 A1 20070613 - SCHLUMBERGER SERVICES PETROL [FR], et al
- See also references of WO 2019094209A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2019094209 A1 20190516; EP 3707502 A1 20200916; EP 3707502 A4 20210106; MX 2020003333 A 20200917;
SA 520411702 B1 20230112; US 11112524 B2 20210907; US 2020271818 A1 20200827

DOCDB simple family (application)

US 2018057802 W 20181026; EP 18875594 A 20181026; MX 2020003333 A 20181026; SA 520411702 A 20200405;
US 201816475424 A 20181026